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09/707,060	11/06/2000	Branko Kovacevic	ATI000069	5798

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EXAMINER

ONUAKU, CHRISTOPHER O

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/707,060

Applicant(s)

KOVACEVIC, BRANKO

Examiner

Christopher O. Onuaku

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 is/are allowed.
- 6) ☒ Claim(s) 1-17 and 21-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 21-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Morinaga et al (US 6,792,000).

Regarding claim 21, Morinaga et al disclose a data processing apparatus/method and a data recording medium that are capable of simultaneous recording and reproducing of a digital satellite broadcast program, comprising:

a) a first input node to receive a multiplexed packetized data stream that carries real-time multimedia programs (see Fig.1, antenna 11, tuner 12; col.3, lines 4-12);

b) a first transport stream demultiplexer having an input coupled to the first input node to select packets of data having a predefined packet identifier and an output to provide the select packets of data (see Fig.1, demultiplexer 18; col.3, line 13 to col.4, line 43);

c) a storage device having a data port coupled to the output of the first transport stream demultiplexer to receive the select packets, wherein the storage device is to

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store the select packets (see Fig.1; hard disk drive 15 which includes the hard disk 42; col.3, line 13 to col.4, line 43);

d) a first clock recovery module having an input coupled to the first input node, and an output, wherein the clock recovery module is to generate a clock at the output based upon received timing information transmitted in packets of the multiplexed packetized data stream before it is stored in the storage device (see time added by the receiver 22 based on the clock generated by means of the cycle timer 27 to the TS packet supplied from the PID parser 21, and supplies it to an input FIFO 23, wherein the time stamp is synchronous with the clock generated by means of the cycle timer 27; col.4, lines 14-32); and

e) a decoder having a first input coupled to the output of the first clock recovery system to receive the clock, a second input coupled to the data port of the storage device to receive the select packets, and an output to provide decoded real-time data (see AV decoder 19; hard disk drive 15, the cycle timer 27; col.3, line 50 to col.4, line 43).

Regarding claim 22, Morinaga et al disclose wherein the first clock recovery module further generates the clock based upon data transmitted in packets of a currently received multiplexed packetized data stream (see cycle timer 27 of Fig.1; col.4, lines 13-32).

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Regarding claim 23, Morinaga et al disclose wherein the first clock recovery module further generates the clock based upon multiplexed packetized data stream data stored in the storage device (see cycle timer 27 of Fig.1; col.4, line 44 to col.5, line 3).

Regarding claims 24&25, Morinaga et al disclose wherein the decoder includes a video decoder and wherein the decoder includes an audio decoder (see AV decoder 19 of Fig.1; col.3, lines 54-65).

Regarding claim 26, Morinaga et al disclose a second transport stream demultiplexer having an input coupled to the data port of the storage device (see Fig.1&2; AV decoder 19 and hard disk drive 15 which includes the hard disk 42; col.5, lines 4-14), here examiner reads the processing of the TS packet reproduced from the hard disk drive 15 by the AV decoder 19 as the 'second' decoder processing, because the Av decoder 19 is adapted to process both the TS packet received from antenna 11 and tuner 12 and the TS packet reproduced from the hard disk drive 15.

Regarding claim 27, Morinaga et al disclose a second clock recovery module having an input coupled to the data port of the storage device to allow STC setting based on the stored system time (see Fig.1&2, cycle timer 27; col.5, line 44 to col.5, line 13), here during the reproduction process the cycle timer 27 performs the clocking and

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timing function as during the recording function, and this time the examiner reads the cycle timer 27 as the 'second' clock recovery module.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-13,15&16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morinaga et al (US 6,792,000) in view of Fujinami et al (US 5,521,922).

Regarding claim 1, Morinaga et al disclose a data processing apparatus/method and a data recording medium that are capable of simultaneous recording and reproducing of a digital satellite broadcast program, comprising the method comprising:

a) receiving a multiplexed packetized data stream that carries real-time multimedia programs (see Fig.1, antenna 11, tuner 12; col.3, lines 4-12);

b) storing a first portion of the packetized data stream representing video data and timing of a program (see Fig.1, hard disk drive 42; col.3, line 66 to col.4, line 43);

c) setting a system time indicator (clock) to a stored system time value, wherein the stored system time value is based on a portion of the timing data of the first portion of the packetized data stream (see time added by the receiver 22 based on the clock generated by means of the cycle timer 27 to the TS packet supplied from the PID parser

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21, and supplies it to an input FIFO 23, wherein the time stamp is synchronous with the clock generated by means of the cycle timer 27; col.4, lines 14-32);

d) retrieving the video data of the first portion of the packetized data stream for video decoding (see Fig.1, had disk controller 41; hard disk drive 42, AV decoder 19; col.4, line 44 to col.5, line 13 and Fig.2; col.10, lines 1-32);

e) storing a second portion of the packetized data stream representing video data and timing data of the program (see Fig.1&2; col.9, lines 48-67).

Here, examiner reads the claimed first portion of the packetized data stream representing the video data as that portion of the received data stream that has been recorded and the second portion as that portion of the data stream that is yet to be recorded in a data stream that is simultaneously being recorded and reproduced, as Morinaga et al disclose.

Morinaga et al fail to explicitly disclose the method comprising incrementing the system time indicator. Fujinami et al teach a data multiplexer adapted for reproducing time-division multiplex data recorded on an optical disk or the like and separating the same into video data and audio data, comprising the STC register 26 which counts 90-kHz clock pulses outputted from the clock generator 27 (system time indicator) and increments its storage value to generate an STC (system time clock) signal (see Fig.1A&4A; col.1, lines 55-64; col.2, lines 35-42 and col.6, line 61 to col.7, line 6)

It would have been obvious to modify Morinaga et al by realizing Moronaga with a system time clock, as taught by Fujinami, in order, for example, to provide the means

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to count the clock pulses outputted from the clock generator to increment the system clock.

Regarding claim 2, the claimed limitations of claim 2 are accommodated in the discussions of claim 1 above since in the processing of simultaneous recording and reproducing of Morinaga, both audio (sound) and video (AV) and recorded and reproduced (see col.3, lines 54-65).

Regarding claim 3, Morinaga et al disclose the method comprising wherein the multiplexed data stream is a multiplexed packetized data stream that substantially meets an MPEG2 specifications (see col.3, lines 60-65).

Regarding claim 4, Morinaga et al disclose the method comprising wherein the the step of storing the first portion includes storing transport stream packets (see col.9, lines 48-67).

Regarding claim 5, Morinaga et al disclose the method comprising wherein the step of storing the first portion includes the sub steps of determining transport stream packets containing data associated with the program and storing the transport stream packets containing data associated with the program after the step of determining (see Fig.6A-6I, control data ; col.10, lines 37-56).



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Regarding claim 6, Morinaga et al disclose the method comprising wherein the step of storing the first portion includes storing packetized elementary stream (PES) packets (see col.9, lines 48-67), here examiner reads the transport stream (TS) packets as PES packets.

Regarding claim 7, the claimed limitations of claim 7 are accommodated in the discussions of claims 5&6 above.

Regarding claim 8, Morinaga et al disclose the method wherein the step of storing the first portion of the transport stream includes the timing data including synchronization information used for playing the program back at a real time program bit-rate (see time stamp, col.4, lines 13-67 and col.13, lines 6-11).

Regarding claim 9, Morinaga modified with the time counting (incrementing) means of Fujinami, it would have been obvious that wherein the step of incrementing the system time indicator includes incrementing the system time indicator based upon a signal generated from multiplexed packetized data stream data received after the first time since the recording and reproducing system of Morinaga processed received multiplexed transport stream, and during the process of recording and reproducing audio/video data stream, wherein the already recorded data stream is the first data, any time increments would be based on the already recorded AV data, and also since the

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system of Morinaga would then be able to access the control data of the recorded AV data.

Regarding claim 10, Moronaga discloses the method of decoding the video data of the first portion to provide a decoded video stream (see Fig.1&2; AV decoder 19; col.3, lines 60-65; col.10, lines 21-26), here the resultant AV data from the AV decoder 16 are supplied to the monitor (not shown, thereby the image and sound (audio) of the digital satellite broadcast program are reproduced (displayed) on the monitor).

Regarding claim 11, Morinaga et al disclose the method wherein the step of receiving a multiplexed packetized data stream and decoding the video data are performed by an integrated semiconductoer device (MV Link-IC 16 and PHY-IC 17 of Fig.1&2; col.3, lines 19-32).

Regarding claim 12, Morinaga et al disclose the method comprising the step of providing the decoded video stream for display at a play back rate (see col.3, lines 60-65; col.10, lines 21-26).

Regarding claim 13, Morinaga et al disclose the method wherein the the play back rate is a real time rate (see col.5, lines 58-63 and col.13 lines 6-12).

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Regarding claim 15, Morinaga et al disclose the method wherein the step of providing the decoded video stream for display includes determining the playback rate based upon timing data received from the multiplexed packetized data stream after the first time (see col.5, lines 58-63 and col.13 lines 6-12), here the play back rate is based on the real time rate, since Morinaga is processing real time data stream.

Regarding claim 16, Morinaga et al disclose the method wherein the timing data received from the multiplexed packetized data stream after the first time is associated with a current real time data stream (see col.5, lines 58-63 and col.13 lines 6-12), here the play back rate is based on the current real time rate, since Morinaga is processing current real time data stream.

5. Claims 14&17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morinaga et al in view of Fujinami et al and further in view of Barton et al (US 6,233,389).

Regarding claim 14, Morinaga and Fujinami disclose the method wherein the providing the decoded video data for display includes determining the playback rate based upon the clock recover data of the first portion (the recorded portion) of the transport stream (see col.12, line 56 to col.13, 11).

Morinaga and Fujinami fail to explicitly disclose the method wherein the playback rate will vary depending upon a rate at which the first portion (the recorded portion) of the transport stream data is provided to a decoder during the decoding function.

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Barton et al teach time shifting of television broadcast signals, including the real time capture, storage, and display of television broadcast signals wherein a user can be watching one program while another stream is being stored (see col.4, lines 15-23, and wherein the stored program can be retrieved at a variable rate, including at a rate faster than the stored rate (see col.8, lines 19-38; col.9, lines 33-47). Playing back a stored program at a variable rate provides the desirable advantage of providing special reproduction capability to a playback system.

It would have been obvious to further modify Morinaga by realizing Morinaga with variable reproduction capability, as taught by Barton, since this provides the desirable advantage of providing special reproduction capability to a playback system.

Regarding claim 17, Barton further teaches the method wherein the playback rate is faster than a real time rate (see col.8, lines 19-38; col.9, lines 33-47).

***Allowable Subject Matter***

6. Claims 18-20 are allowable over the prior art of record.
7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 18, the invention relates to time shifting of video data, including time shifting of digital video data.

The closest references Morinaga et al (US 6,792,000) disclose a data processing apparatus/method and a data recording medium that are capable of simultaneous recording and reproducing of a digital satellite broadcast program, and Fujinami et al (US 5,521,922) teach a data multiplexer adapted for reproducing time-division multiplex data recorded on an optical disk or the like and separating the same into video data and audio data.

However, Morinaga et al and Fujinami et al fail to explicitly disclose a method comprising the steps of during a third mode of operation receiving the multiplexed packetized data stream at the first demultiplexer, selecting the first program from the multiplexed packetized data stream, storing a first program portion of the first program, providing the first program portion to a second demultiplexer, selecting at the second demultiplexer a video portion of the first program portion, decoding the video portion of the first program portion for display, and storing a second program portion of the first program simultaneous to the step of decoding.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshio et al (US 5,936,925) teach a recording apparatus for recording the information onto the information recording medium, and a reproducing apparatus for reproducing the information from the information record medium.

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Ueki (US 6,751,170) teach an information-signal recording apparatus and an information-signal reproducing apparatus, including an information-signal recording medium.

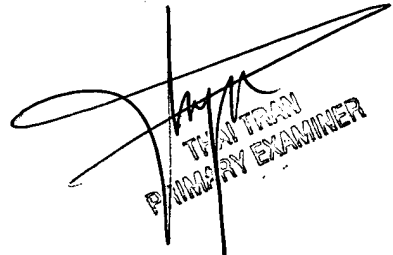
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher O. Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Acting supervisor, Thai Tran, can be reached on 703-305-4725. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
COO

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THAI TRAN  
PRIMARY EXAMINER